

Receiving Report

Date: 15-03-17
 Supplier: KLX inc

Batch No: 131803
 Dart P/O: 27789

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☐
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☐ No ☒ N/A ☐
 Waybill Attached: Yes ☒ No ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☒
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

SP

Production/Admin:

Date _____
 Received/Costing _____
 Initial _____

Location _____



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO27789**

Purchase Order Date 3/16/2015

PO Print Date 3/16/2015

Page Number 1 of 6

Order From :

VU-KLX01

KLX INC.
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M22759/16-20-9	WIRE	3/18/2015 Yes 3/18/2015		200.00 f	\$0.19	\$38.00
Line Total:							\$38.00
2	MS21042L4	Locknut	3/18/2015 Yes 3/18/2015	FN	1,000.00 Each	\$0.17	\$170.00
Line Total:							\$170.00
3	AN4-12A	Bolt	3/18/2015 Yes 3/18/2015	FN	200.00 Each	\$0.18	\$36.00

Note:

3/16/2015

SP 15-03-17



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1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
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Chantal Lavoie

10127-2607

Net 30

USD

Destination-Collect

Line Total: \$36.00

4	AN3C4A	Bolt	3/18/2015	FN	1,000.00	Yes	Each	\$0.25	\$250.00
			3/18/2015						

Line Total: \$250.00

5	AN4-20A	Bolt	3/18/2015	FN	50.00	Yes	Each	\$0.35	\$17.50
			3/18/2015						

Line Total: \$17.50

6	MS28775-011	O-Ring	3/18/2015		500.00	Yes	Each	\$0.10	\$50.00
			3/18/2015						

AS PER DWG D2594 REV. C
B130546

Line Total: \$50.00

SP15-03-17

Note:

3/16/2015



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88289 EXPEDITE WAY
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1270 ABERDEEN
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CANADA

Contact Name

Vendor Phone

305-925-2600

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

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Net 30

Currency

USD

FOB

Destination-Collect

Ship To Contact

Ship To Phone

Ship Via:

FedEx Overnight collect

Ship Acct:

7	AN4-14A	Bolt	3/18/2015 Yes 3/18/2015	FN	200.00 Each	✓	\$0.22	\$44.00
Line Total:								\$44.00
8	AN3C5A	Bolt	3/18/2015 Yes 3/18/2015	FN	800.00 Each	✓	\$0.30	\$240.00
Line Total:								\$240.00
9	AN6-40A	Bolt	3/18/2015 Yes 3/18/2015	FN	100.00 Each	✓	\$1.75	\$175.00
Line Total:								\$175.00
10	AN924-6J	NUT	3/18/2015 Yes 3/18/2015		10.00 Each	✓	\$2.00	\$20.00

SP 15-03-17

Note:

3/16/2015



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USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Total: \$20.00

11 CCR264SS3-02

Rivet, Cherry

3/18/2015 FN

150.00

\$0.15

\$22.50

Yes

Each

3/18/2015

Line Total: \$22.50

12 CR1122-3-02.5

RIVET

3/18/2015

100.00

\$1.20

\$120.00

Yes

Each

3/18/2015

Line Total: \$120.00

13 CR3213-4-03

rivet

3/18/2015

100.00

\$0.36

\$36.00

Yes

Each

3/18/2015

Line Total: \$36.00

Note:

3/16/2015

SP15-03-17



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Ship Acct:

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Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

14	CR3523-4-02	RIVET	3/18/2015	200.00		\$0.95	\$190.00
			Yes	Each			
			3/18/2015				

Line Total: \$190.00

15	HL86-8	Collar	3/18/2015	100.00		\$2.20	\$220.00
			Yes	Each			
			3/18/2015				

Line Total: \$220.00

16	71401-45	PROCUREMENT QUALITY CLAUSES	3/18/2015	1.00		\$0.00	\$0.00
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No

Procurement Quality Clauses

3/18/2015

A005 RIGHT OF ENTRY
A012 CHEMICAL AND PHYSICAL TEST REPORTS
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS
FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A043 RETENTION OF QUALITY DOCUMENT

Spas out

Note:

3/16/2015



1. Vendor (Name and Address)/Vendeur (Nom et adresse) KLX Inc. P.O. Box 025263 Miami, FL 33102-5263		2. Date of Direct Shipment to Canada/Date d'expédition directe vers la Canada 03/16/2015	
4. Consignee (Name and Address)/Destinataire (Nom et adresse) DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY, ON CANADA K6A 1K7		3. Other References (include Purchaser's Order No.) Autres références (inclure le n° de commande de l'acheteur) PO#: PO27789	
		5. Purchaser's Name and Address (If other than Consignee) Nom et adresse de l'acheteur (S'il diffère du destinataire) DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY, ON CANADA K6A 1K7	
		6. Country of Transshipment/Pays de transbordement CANADA	
		7. Country of Origin of Goods Pays d'origine des marchandises USA	IF SHIPMENT INCLUDES GOODS OF DIFFERENT ORIGINS ENTER ORIGINS AGAINST ITEMS IN 12 SI L'EXPÉDITION COMPREND DES MARCHANDISES D'ORIGINES DIFFÉRENTES, PRÉCISER LEUR PROVENANCE EN 12.
8. Transportation: Give Mode and Place of Direct Shipment to Canada Transport: Préciser mode et point d'expédition directe vers le Canada FEDX INTL P1 COLL		9. Conditions of Sales and Terms of Payment (i.e. Sale, Consignment Shipment, Leased Goods, etc.) Conditions de vente et modalités de paiement (p. ex. vente, expédition en consignation, location de marchandises, etc.) NET 45	
		10. Currency of Settlement/Devises du paiement U.S. Currency	
11. No. of Pkgs Nbre de colis	12. Specification of Commodities (Kind of Packages, Marks and Numbers, General Description and Characteristics, i.e. Grade, Quality) Désignation des articles (Nature des colis, marques et numéros, description générale et caractéristiques, p. ex. classe, qualité)	13. Quantity (State Unit) Quantité (Préciser l'unité)	14. Unit Price Prix unitaire
1	PO#: PO27789 AN6-40A Invoice#: HYWBVF BOLT	100	1.750 /EA
1	PO#: PO27789 MS21042L4 AN4-12A AN3C4A AN4-20A AN4-14A AN3C5A AN924-6J Invoice#: HYWBVF NUT, SELF-LOCKING BOLT BOLT BOLT BOLT BOLT BOLT NUT, FITTING	1000 200 1000 50 200 800 10	0.170 /EA 0.180 /EA 0.250 /EA 0.350 /EA 0.220 /EA 0.300 /EA 2.000 /EA
			15. Total
			175.00 170.00 36.00 250.00 17.50 44.00 240.00 20.00
18. If any of fields 1 to 17 are included on an attached commercial invoice, check this box. Si les renseignements des zones 1 à 17 figurent sur la facture commerciale, cocher cette boîte. <input checked="" type="checkbox"/> Commercial Invoice No./N° de la facture commerciale		16. Total Weight/Poids Total Net Gross/Brut 48 lb 0oz	
19. Exporter's Name and Address (if other than Vendor) Nom et adresse de l'exportateur (S'il diffère du vendeur) KLX Inc. 10000 NW 15 TERRACE MIAMI, FL 33172		17. Invoice Total Total de la facture 1,541.00	
20. Originator (Name and Address)/Expéditeur d'origine (Nom et adresse) Office Manager			
21. Departmental Ruling (if applicable)/Décision du Ministère (S'il y a lieu)		22. If fields 23 to 25 are not applicable, check this box Si les zones 23 à 25 sont sans objet, cocher cette boîte. <input checked="" type="checkbox"/>	
23. If included in field 17 indicate amount: Si compris dans le total à la zone 17, préciser: (i) Transportation charges, expenses and insurance from the place of direct shipment to Canada Les frais de transport, dépenses et assurances à partir du point d'expédition directe vers le Canada \$ _____ (ii) Costs for construction, erection and assembly incurred after importation into Canada Les coûts de construction, d'érection et d'assemblage après importation au Canada \$ _____ (iii) Export packing Le coût de l'emballage d'exportation \$ _____		24. If not included in field 17 indicate amount: Si non compris dans le total à la zone 17, préciser: (i) Transportation charges, expenses and insurance to the place of direct shipment to Canada Les frais de transport, dépenses et assurances jusqu'au point d'expédition directe vers le Canada \$ _____ (ii) Amounts for commissions other than buying commissions Les commissions autres que celles versées pour l'achat \$ _____ (iii) Export packing Le coût de l'emballage d'exportation \$ _____	
25. Check (if applicable) Cocher (S'il y a lieu): (i) Royalty payments or subsequent proceeds are paid or payable by the purchaser De redevances ou produits ont été ou seront versés par l'acheteur <input type="checkbox"/> (ii) The purchaser has supplied goods or services for use in the production of these goods L'acheteur a fourni des marchandises ou des services pour la production des marchandises <input type="checkbox"/>			



Revenue Canada
Customs and Excise

Revenu Canada
Douanes et Accise

CONTINUATION SHEET
FEUILLE SUPPLÉMENTAIRE

Page
2 of 2

1. Vendor (Name only)/Vendeur (Nom seulement) KLX Inc.		2. Other References (include Purchaser's Order No.) Autres références (inclure le n° de commande de l'acheteur) PO#: PO27789		
3. Consignee (Name only)/Destinataire (Nom seulement) DART AEROSPACE LTD				
4. Purchaser if other than Consignee and/or Importer (Name only) Acheteur, s'il diffère du destinataire et (ou) de l'importateur (Nom seulement) DART AEROSPACE LTD				
5. No. of Pkgs Nbre de colis	6. Specification of Commodities (Kind of Packages, Marks and Numbers, General Description and Characteristics, i.e. Grade, Quality) Designation des articles (Nature des colis, marques et numéros, description générale et caractéristiques, p. ex. classe, qualité)	13. Quantity (State Unit) Quantité (Préciser l'unité)	Selling Price/Prix de vente	
			14. Unit Price Prix unitaire	15. Total
	PO#: PO27789			
	CCR264SS-3-02	CHERRY PULL-THRU RIV	150	0.150 /EA 22.50
	CR1122-3-02.5	CR LOCK RIVET	100	1.200 /EA 120.00
	CR3213-4-03	CR MAX RIVET	100	0.360 /EA 36.00
	HL86-8	HL COLLAR	100	2.200 /EA 220.00
	PO#: PO27789	Invoice#: HYWBVE		
	CR3523-4-02	CR MAX RIVET	200	0.950 /EA 190.00
U.S. Currency				



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXaerospace.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER

HYWBVF

PAGE 1 OF 5

SEND TO ACCOUNTING

SOLD TO:
002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO27789		03/16/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
2	1000	MS21042L4 NUT, SELF-LOCKING ECCN :9A991 Country Origin: USA TARIFF: 7318.16.0085 MFR: MACLEAN-ESNA CTRL# : 2014G28432 LOT# : 46621-000 LOT QTY: 1000 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.170	EA	0	1000	170.00
3	200	AN4-12A BOLT ECCN :9A991 Country Origin: USA TARIFF: 7318.15.8085 MFR: AIRFASCO INDUSTRIES CTRL# : 2007C00560 LOT# : 12564 LOT QTY: 200 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.180	EA	0	200	36.00
4	1000	AN3C4A BOLT ECCN :9A991 Country Origin: USA TARIFF: 7318.15.8085 MFR: MAC FASTENERS CTRL# : 2014C13608 LOT# : 68524 LOT QTY: 1000	0.250	EA	0	1000	250.00
CONTINUED							
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.							

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
<http://www.KLXaerospace.com/conditions-sale/>



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXaerospace.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER

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CANADA K6A 1K7

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1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS		
PO27789		03/16/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
5	50	COUNTRY OF ORIGIN: USA Country of Origin: USA AN4-20A BOLT ECCN :9A991 Country Origin: USA TARIFF: 7318.15.8085 MFR: MAC FASTENERS CTRL# : 2009E00034 LOT# : 38674 LOT QTY: 50		0.350	EA	0	50	17.50
7	200	COUNTRY OF ORIGIN: USA Country of Origin: USA AN4-14A BOLT ECCN :9A991 Country Origin: USA TARIFF: 7318.15.8085 MFR: MAC FASTENERS CTRL# : 2014B03399 LOT# : 68538 LOT QTY: 200		0.220	EA	0	200	44.00
8	800	COUNTRY OF ORIGIN: USA Country of Origin: USA AN3C5A BOLT ECCN :9A991 Country Origin: USA TARIFF: 7318.15.8085 MFR: CALIFORNIA SCREW PRODUCTS CTRL# : 2015A28857		0.300	EA	0	800	240.00
CONTINUED								
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.								

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1270 ABERDEEN ST
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CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

PAGE 4 OF 5



ORDER NO.		DATE	SHIP VIA	TERMS	SHIPPING TERMS			
PO27789		03/16/15	FEDX INTL P1 COLL	NET 45	FOB-MIAMI			
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
12	100	CTRL# : 2011A08358 LOT# : 87436006 LOT QTY: 150 COUNTRY OF ORIGIN: USA Country of Origin: USA CR1122-3-02.5 CR LOCK RIVET Country Origin: USA TARIFF: 7616.10.3000 MFR: CHERRY AEROSPACE SANTA AN		1.200	EA	0	100	120.00
13	100	CTRL# : 2014I13193 LOT# : 87981799 LOT QTY: 100 COUNTRY OF ORIGIN: USA Country of Origin: USA CR3213-4-03 CR MAX RIVET Country Origin: USA TARIFF: 7318.23.0000 MFR: CHERRY AEROSPACE SANTA AN		0.360	EA	0	100	36.00
15	100	CTRL# : 2011H22133 LOT# : 87466026 LOT QTY: 100 COUNTRY OF ORIGIN: USA Country of Origin: USA HL86-8 HL COLLAR ECCN :9A991 Country Origin: USA TARIFF: 7318.24.0000 MFR: ALCOA/VOISHAN FASTENING S		2.200	EA	0	100	220.00
CONTINUED								

MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
<http://www.KLXaerospace.com/conditions-sale/>

03/16/15

CUSTOMS INVOICE/PACKING SHEET



4304862-00

Cust#: 41513

SOLD TO: KLX Inc.

ATTN LESLIE MENIEUR
US

By receiving delivery of the items covered by this packing slip, buyer agrees to the terms and conditions of sale at:
www.KLXAerospace.com

SHIP TO: DART AEROSPACE LTD

1270 ABERDEEN ST

HAWKESBURY, CA K6A 1K7

Pref. Routing A.O.G.: FEDX INTL P1 COLL

CORRESPONDENCE TO:

KLX Inc.

10000 N.W. 15th Terrace

Miami, FL 33172

6200 6507 89 19

UPC VENDOR	INVOICE NO.	ON DOCK
000000	HYW62V	03/16/15
PROMISED	REQUEST	SHIPPED
03/16/15	03/16/15	
CUSTOMER P.O.	CUSTOMER RELEASE	
P027789	9KZ594	

P.O. NUMBER	ITEM NO.	PART NUMBER	ICN No.	QTY	UOM	UNIT PRICE	TOTAL VALUE	COUNTRY OF ORIGIN	QUANTITY ORDERED	QUANTITY B.O.	QUANTITY SHIPPED
OZZWN59	6	MS28775-011		500.00	EA	0.10	50.00		500.00	0.00	500.00
		Desc: PACKING PCAT: S HS# 4016.93.0000	398041	500.00		Cure: 3Q2014		US			
		MFR- Name: PRECIX MFR-Product: 011M31A Revision: A Lot: 14231002 IT IS HEREBY CERTIFIED THAT THE ITEM IDENTIFIED HEREIN CONFORMS TO AN ESTABLISHED INDUSTRY, U.S. GOVERNMENT, OR COMMERCIAL STANDARD. PARTS ARE BEING SHIPPED BY KAPCO ON BEHALF OF KLX AEROSPACE SOLUTIONS (KLX Inc.) S/L: 15 YRS PER ARP5316 INSP BY: s1r2 03/16/2015									

The merchandise listed has been produced in accordance with Fair Labor Standards Act of 1938 as amended.
No claims allowed unless made within ten (10) days after receipts of Goods and in no case shall the liability
assumed by us under the guarantees either expressed or implied, exceed the face value of the invoice for the
merchandise in question.

These commodities, technology or software were exported from the United States in accordance with the
Export Administration Regulations. Diversion contrary to U.S. Law is prohibited.

SHIPPED UNDER NLR HS#8803.30.0010 - ECCN: 9A991.D

COUNTRY OF ORIGIN: USA

TOTAL BOX VALUE:

50.00 USD

PAGE 1



CERTIFICATE OF CONFORMANCE

WE HEREBY CERTIFY THAT THE PRODUCT SUPPLIED IS NEWLY MANUFACTURED, CONFORMS TO THE
APPROVED DESIGN DATA, AND MEETS ALL REQUIREMENTS OF THE APPLICABLE PURCHASE ORDER.
EVIDENCE OF CONFORMANCE IS ON FILE AND AVAILABLE FOR REVIEW UPON REQUEST.

PETE CURTI
CORPORATE VICE PRESIDENT OF QUALITY

Thank You For This Order
PACKING LIST

FOR CUSTOMS PURPOSES ONLY. DO NOT PAY FROM THIS DOCUMENT.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	200	EA	AN4-12A		12564	AIRFASCO INDUSTRIES	32958		


Jason Lewis
Senior Director, Global Quality

03/16/15



AIRFASCO
INDUSTRIES
MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199

CERTIFICATE OF CONFORMANCE

M & M

I hereby certify that on 02/14/07 Airfasco Industries provided the supplies called for by Contract/ PO Number **0AW362** in accordance with all applicable requirements for shipment. I further state that the process certifications are in conformance with the contract requirements, including specifications and/or drawings, physical item identification (part number) and the quantity shown on this or attached acceptance document. The part numbers certified below have been manufactured in the United States. DFAR 252.225-7014 ALT 1 compliant in fastener base raw material melt source only, with heat number and country, does not include the post cadmium metal plating


WM. DENT

Quality Assurance Representative

PART NUMBER	LOT NUMBER	QUANTITY	PART NUMBER	LOT NUMBER	QUANTITY
AN4-12A	12564	104575			



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
8	800	EA	AN3CSA		325733	CALIFORNIA SCREW PRO	82507		


Jason Lewis
Senior Director, Global Quality

03/16/15

**CALIFORNIA SCREW PRODUCTS CORP.**

14957 GWENCHRIS CT. PARAMOUNT, CA 90723

P: 562-633-6626

F: 562-529-7108

CAGE NUMBER : 8Z507

Airbus UK Approval No. AUK/SA/30144

Job Number : 325733

BAE/AG/30235 / MAA

TEST REPORT**CSP**

Part Number : AN3C5A
Customer : B/E AEROSPACE CONSUMABLE MANAGEMENT
Procurement Spec. : NASM6812 REV. 3
Surface Finish Spec : AMS2700 REV. E
Heat Treat Spec : AMS2759/5 REV. D
Mgntc Permeability : N/A

Part Standard : NASM3-20 REV. 2 **REF. REV. 3**
Cust. Purchase Order Number : OZYNA83
Thread Size & Form : .190-32 UNF-3A
Thread Spec : MIL-S-7742 REV. D
Sample Size Spec. : NASM6812 REV. 3

Shipped Quantity*: 2648
Mfg Quantity: 52000
Matl Spec: AMS 5628 REV. F
Item Description: Bolt
Heat Number: 568515

* Actual piece count is within +/- 2% of the shown lot quantity.

NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)

Sample Size : 0 specimens Inspection Results: Accept : 0 Reject : 0 specimens
Magnetic Particle : N/A Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens Accept : 5 Reject : 0 Lab Mount No. : 44050
GRAIN SIZE : 7.0 HEAD STRUCTURE : Accept LAPS : Accept MICRO STRUCTURE : Accept
FILLET COLD WORKED : Accept DECARB : Accept SEAMS : Accept CARBURIZED : Accept
GRAIN FLOW HEAD : Accept GRAIN FLOW THREAD : Accept CRACKS : Accept THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) - Loc. of Failure: Threads Minimum Req.: 2210
Sample Size : 5 specimens Accept : 5 Reject : 0 Maximum Req.: 0

1. 3224	2. 3261	3. 3253	4. 3271	5. 3254	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE Sample Size : 5 specimens Accept : 5 Reject : 0 Minimum Req.: 2125

1. 2650	2. 2646	3. 2663	4. 2639	5. 2590	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST - Sample Size : 8 Hardness Req. RC : 26-32 Hardness Results : 27-29

STRESS RUPTURE TEST - N/A Load (Lbs.) : 0 Temperature (F) : 0 Periodic test, REF Job No.
Sample Size : 0 Hours : 0

FATIGUE TEST - N/A Cycles : 0 Min Req. : 0
Sample Size : 0 Low Load (lbs.) : 0 High Load (lbs.) : 0

TORQUE TEST - N/A Sample Size : 0 Load (Lbs/in) : 0

STRESS DURABILITY TEST - N/A Sample Size : 0 LOAD (Lbs.) : 0 Hours : 0

STATEMENT OF CONFORMANCE:

This report relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP, hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full, unless authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

Carlos Amecua
Form QCSP019 Form Revision Date: 06/06/2007

DFAR 252.225.7009
COMPLIANCE

Carlos Amecua
FINAL INSPECTOR
(Name, Signature, Stamp and Date)

21
CSP

JAN 23 2015

CERTIFICATE OF TESTS

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

CERT SERIAL# 000876559



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

05/16/13

CUSTOMER/BESTELLER/CLIENT

CALIFORNIA SCREW PRODUCTS CORP

PO BOX 228
PARAMOUNT

CA 90723

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER/VERKÄUFER/VENDEURPAGE 1 OF 2

RAN

J/N 325733

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
124819/	W74089/	05/16/13	1994.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 568515/

PRODUCT DESCRIPTION: TYPE 431 AIRCRAFT QUAL ANNEALED COLD FINISH SEAM FREE C
----- HDG CL N2 HVY CU/MOLY/SOAP

SPECIFICATION: AMS 5628 (REFFIRMED) REV F (10/ /06)
----- ASTM-A493-09/
DFARS 1998 EDITION

SIZE 0.186000/ IN. (4.72 MM) RD WIRE

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.16	0.61	0.53	0.015	0.007	15.80
NI (XRF)	MO (XRF)	CU (XRF)	N (FUS)		
1.55	0.04	0.05	0.05		

THIS MATERIAL CONFORMS TO THE TECHNICAL REQUIREMENTS OF THE AMS SPECIFICATION REFERENCED ABOVE.

DISCS MACROETCHED AND APPROVED

TENSILE AS SHIPPED, KSI (MPA) 104.0 (717)

MAX QUENCH HARDNESS, HRC - 52 - 1875 F (1024 C) 30 MN OIL TREAT

CAPABILITY

1875 F (1024 C), 30 MN
QUENCH IN AGITATED OIL AT 125F +/-25F COOL T
1175 F (635 C), 03 HR AIR COOL

RETAINED AUSTENITE - NONE (VILELLAS)

MICROSTRUCTURE - FERRITE - NONE (VILELLAS)

GRAIN SIZE PER ASTM E112: 7 (VILELLAS)

LMK 9005
JOSE GERVANES
MAY 23 2013
DFAR 252.225.7009 COMPLIANCE

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

CERTIFICATE OF TESTS
CERT SERIAL# 000876559

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTRÔLE



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

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- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION
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05/16/13

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKÄUFER/VEDEURPAGE 2 OF 2

CALIFORNIA SCREW PRODUCTS CORP

PO BOX 228
PARAMOUNT

CA 90723

J/N325733

RAN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
124819	W74089	05/16/13	1994.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE :

568515

CAPABILITY

1875 F (1024 C) , 01 HR
-100 F (-73 C) , 02 HR
WARM TO ROOM TEMPERATURE.
550 F (288 C) , 02 HR
550 F (288 C) , 02 HR

OIL TREAT

AIR COOL
AIR COOL

(T) RANSVERSE (L) ONGITUDINAL L
YIELD STRENGTH, (0.20 %) KSI (MPA) 162.0 (1117)
TENSILE STRENGTH, KSI (MPA) 222.0 (1531)
ELONGATION IN 2.00" , % 14.0
REDUCTION OF AREA, % 51.0

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

JASON M RAYMOND
ADMINISTRATOR - QUALITY
CARPENTER TECHNOLOGY CORPORATION

Handwritten: 9005
Jose Cervantes
MAY 23 2013

DFAR 252.225.7009
COMPLIANCE

Certification: 78-178354



Huntington Park Division
3370 Benedict Way Huntington Park, CA 90255
Phone: 323.583.1231
QC Fax: 323.583.9640 Accounting Fax: 323.583.0515
www.bodycote.com

Cert No. 78-178354
CRT1795290078\$1
Certified: 6/21/2013

Bill To

Ship To

California Screw Products Corporation
14967 Gwenchris Court
Paramount, CA 90723

Ship To: 78-16267-1
California Screw Products Corporation
14967 Gwenchris Court
Paramount, CA 90723

We are pleased to submit our CERTIFICATION OF HEAT TREATMENT of the following:

Order No 251471	PO Number 130878	PL Number 6/14/13	Received 6/12/2013 7:18:09 AM
Requirements			Value
Surface Hardness Min (HRC)			27.0
Surface Hardness Max (HRC)			32.0
Qty 52000	Wgt 455	Part No. AN3C5A	Part Name Material 431
Part Description JOB: 325733 PART STANDARD: NASM3-20 REV.2 CODE: 4135 Hardened and Tempered to 27-32 HRC per AMS 2759/5 Rev D and the Purchase Order. 1 Bodycote Decarb Coupon			
52000	455	Total	

We hereby certify that the parts described on this document were Heat Treated in accordance with the above noted specifications and the following results were obtained with standard approved methods.

Parts processed free of mercury contamination.

Recorded Values	Value
Surface Hardness Act = (HRC)	28.0
Quantity Inspected = (integer)	6
Hrdnss convrted from = (text)	74.1 hr15n

Furnace #	Process	Temperature	Time	Quench
502	Vac Austentize	1875F	48 minute	Oil 124F
604	Cold Stabilize	-100F	2 hour	
427	Temper	1125F	3 hour 30 minute	
433	Temper	1125F	3 hour 25 minute	

Surface contamination results conform to specification requirements.

All processes involved in the production of these articles and requiring specific process approval have been so approved and certificates are on file subject to examination.

Bodycote - H.P.

Certified: 6/21/2013

By: Tara Rodriguez G.A. Tech

California Screw Products Corporation
(Fax) 1 (582) 833-2082

ACTIVE



CALIFORNIA SCREW PRODUCTS

TERMS: net 30

This test certification shall not be reproduced except in full. This certification shall not be used by the customer to claim product endorsement by any agency of the U.S. government. Active Magnetic Inspection certifies that the product shipped on the above certification were processed, inspection & tested in compliance with all applicable prints & specifications. All supporting documentation is on file at Active Magnetic Inspection.

CERTIFICATION / TEST / REPORT

CALIFORNIA SCREW PRODUCTS

14957 Gwenchris Court
Paramount, CA 90723

CHECK LIST OF DOCUMENTS TO CUSTOMER

JOB NUMBER: 325733 PART NUMBER: AN3C5A

DESCRIPTION	NUMBER OF PAGES
PACKAGING SLIP	<u>1</u>
TEST REPORT	<u>1</u>
DIMENSIONAL INSPECTION	<u>N/A</u>
CERTIFICATE OF QUALITY COMPLIANCE (COQC)	<u>N/A</u>
MATERIAL CERTIFICATE	<u>2</u>
HEAT TREATMENT CERTIFICATE	<u>1</u>
SURFACE FINISH CERTIFICATE (PLATE, PASSIVATE, ETC.)	<u>1 *</u>
NON-DESTRUCTIVE INSPECTION CERTIFICATE(MAG. FLUOR.)	<u>N/A</u>
FATIGUE TEST RESULTS	<u>N/A</u>
STRESS DURABILITY TEST RESULTS	<u>N/A</u>
CERTIFICATION OF PROCESSING	<u>N/A</u>
SALT SPRAY/HIGH HUMIDITY	<u>*</u>
STRESS CORROSION TEST CERTIFICATE	<u>N/A</u>
LOCKING ELEMENT CERTIFICATE	<u>N/A</u>
GOVERNMENT CONTRACT	<u>N/A</u>
P.O. TO ALL SERVICE	<u>N/A</u>
RELEASE AUTHORIZATION	<u>N/A</u>
THREAD INSPECTION REPORT	<u>N/A</u>
TOTAL:	<u>6</u>

* Indicates that all certifications are in one document.

PROCESSED BY:

DATE:

JAN 28 2015

Please check this list to assure that all documents are received and request for any missing one within 10 days after receiving material.

Your cooperation is greatly appreciated.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	1000	EA	MS21042L4		46621-000	MACLEAN-ESNA		019L2	


Jason Lewis
Senior Director, Global Quality

03/16/15

Inv # 03/16/15



P.O. Box 025263, Miami, FL 33102-5263 • Tel:
Plant Location: 10000 NW 15th Terrace, Mia
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certif

The items set forth on the purchase order referred
and the dimensions thereof have been measured
as the representation made to us by the manufact
order, we hereby certify that such items are in con
and manufacturer's requirements, specifications,
order requirements. Said items are in new conditi
U.S. Government or Military source and are trace

FIRM: DA

PURCHAS

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT
4	1000	EA	AN3C4A		685

/15

MACLEAN-ESNA A MACLEAN-FOGG COMPANY POCAHONTAS, ARKANSAS 72455

CERTIFICATE OF QUALITY COMPLIANCE

TO: B/E AEROSPACE
9835 NW 14TH ST
MIAMI, FL 33172

DATE: 7/23/2014

ESNA PART NO. M52LF3324-4
MANUFACTURER'S LOT SIZE 64729 (APPROX. WT. COUNT)
MANUFACTURED UNDER SHOP ORDER NUMBER 46621 - 000
ORIGINATED AS SHOP ORDER NUMBER
CUSTOMER PO #: OPYW91
ESNA ORDER #: 080310
CUSTOMER PART #: MS21042L4 & NAS1291-4
PACKING LIST #: 65502
QTY PACKAGED: 64729

ACCEPTANCE TESTS PER NASM25027 REV 1

MATERIAL RAW MATERIAL TYPE .281 4037 WIRE DATE MFG: 09/10/11
RAW MATERIAL CONFORMS TO AMS 6300E
ORDER NO. 46621 - 000 MILL HEAT NO. 10172300
AS EVIDENCED BY THE ATTACHED MILL CERTIFICATION. ESNA SHOP
VENDOR WIRE TECH
FINISH FINISH TYPE CAD. PLATE TO SAE AMS QQ-P-416B, TY II, CL 2
LUBRICANT TYPE EVERLUB 620C DRY FILM LUBE PER AS5272 TYPE I
ACCEPTED 23HRS. STRESS EMBRITTLEMENT LOADED TO 129 IN. LBS. MIN.

AXIAL STRENGTH REQUIRED LBS. MINIMUM 6470
EXCEEDS LBS. 6500
SAMPLE SIZE 15 PIECES.
ALL SAMPLE PIECES TESTED MEET OR EXCEED
MINIMUM REQUIREMENTS.
HARDNESS REQUIREMENT RC 43-46 IS RC 43-46

WORKMANSHIP CONFORMS DIMENSIONALLY TO MS21042L4 PER NASM21042 REV 1 & NAS1291-4 REV 14 STANDARD.
BEARING SURFACE SQUARENESS AS SPECIFIED PER NASM25027 REV 1

DISCONTINUITIES

WITHIN LIMITS PER NASM25027 REV 1

AND MIL-STD-271D/ACN 1/ AND REV E/ NOTICE 2/ AND REV F/ NOTICE 1.

ASTM-E1444/E1444M REV 12

MT PER SPEC 725 X	SAMPLE SIZE(MT - PCS):	32
	ACCEPTED(PCS):	32
PT PER SPEC 731	SAMPLE SIZE(PT - PCS):	0
	ACCEPTED(PCS):	N/A

This is to certify that all applicable plating, heat treating, and inspection processing and that all material used in
the manufacture of subject parts conform to the specification or drawings received by ESNA and set forth in the subject
purchase order; that the parts are of good material and workmanship; and that all necessary records, including chemical
and physical where applicable, will be made available for review upon request. The inspection and test reports provided
represent the actual attributes of the items furnished on this contract and indicate full compliance with all applicable
specification and contract requirements.

This is to certify that the materials supplied against the subject order are free of contamination by presence of
mercury.

FSCM/CAGE NO. 019L2
QAF68 REV. 10-11-13

SIGNATURE

Mara Kildow
TERESA MELTON, QUALITY ASSURANCE MANAGER
Mara Kildow, Quality Technician

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0RFA79

PART NUMBER: AN3C4A

REV: 2

LOT NUMBER: 68524

MANUFACTURED QUANTITY: 60,000

MILL HEAT NUMBER: 568597

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 02/25/14


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company- SAI GLOBAL - 0058029



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
5	50	EA	AN4-20A		38674	MAC FASTENERS	0RFT4		


Jason Lewis
Senior Director, Global Quality

03/16/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: M & M AEROSPACE

DATE: 04/06/09

PO NUMBER: OAT231

PART NUMBER: AN4-20A

REVISION: 1

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225-7014, ALTERNATE 1 COMPLIANT

LOT NUMBER: 38674

MANUFACTURED QUANTITY: 120,000

MILL HEAT NUMBER: 7566459

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in conformance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.



QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: M & M AEROSPACE

DATE: 04/06/09

PO NUMBER: OAT231

MANUFACTURED QUANTITY: 120,000

LOT NUMBER: 38674

MATERIAL: TYPE 8740

PART NUMBER: AN4-20A

REVISION: 1

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 28-30 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.



QUALITY ASSURANCE REPRESENTATIVE

CHICAGO WIRE Division of



CERTIFICATE OF ANALYSIS

FOR: Mac Fasteners

DATE: 11/18/08

VENDOR TAG NO.: J4791

VENDOR PO NO.: 09-340

10,426 lbs.

GRADE: 8740

DESCRIPTION: CHQ WIRE
SIZE: .2465

HEAT NO.: 7566459

CHEMICAL ANALYSIS

<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>	<u>Al</u>	<u>Ni</u>	<u>Cr</u>
.40	.89	.013	.010	.27	.027	.47	.49
<u>Mo</u>	<u>Cu</u>	<u>V</u>	<u>Co</u>	<u>Ti</u>	<u>N</u>	<u>Sn</u>	
.22	.02	.004	.001	????	.004	.002	

PHYSICAL

AMS 2301	<u>J1</u>	<u>J10</u>	<u>J11</u>	<u>J12</u>	<u>J2</u>	<u>J3</u>	<u>J5</u>	<u>J4</u>
0000	58	43	40	34	57	56	55	56
		<u>J6</u>	<u>J7</u>	<u>J8</u>	<u>J9</u>			
MacroClean		53	52	50	46			
E-381 212								

MECHANICAL

<u>TEST</u>	<u>UNITS</u>	<u>HIGH</u>	<u>LOW</u>	<u>AVERAGE</u>
Tensile Str	Lbs/Sqin	85000	83000	84000
RA Area	SqIn	75.2	67.8	71.4
Decarb FFD	Inches	.00	.00	.00
Surface def. depth	Inches	.00	.00	.00

SPECIFICATIONS: AMS2301J AMS 6322N 8740 DFARS Defense Federal Acquisition Regulation Supplement
Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In
Process Heavy Phos & Light Lube Ctd SIZE: .2465

MILL/ROD/MELT SOURCE

Mill Source
Johnstown

Rod Source
Republic

Melt Source
Republic

SUBSCRIBED AND SWORN TO BEFORE ME THIS 18th DAY OF NOVEMBER, 2008. WE CERTIFY THE
FOREGOING A TRUE AND ACCURATE REPORT AS REPRESENTED TO US BY OUR SUPPLIERS.

Ray Vogel

General Manager





**Johnstown
Wire
Technologies**

124 Laurel Ave,
Johnstown, PA 15906
Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
893037

TEST REPORT

LOT NUMBER
.7566459
SALES ORDER / RLS
087285 / 1

SOLD TO

Chicago Wire "Division of BCS"
Accounts Payable Department
1047 Douglas Road
Batavia, IL 60510
USA



CUSTOMER P.O. 09-340	CUSTOMER PART 258740 2465 2	QUANTITY 37,206 LBS	COILS 21	LADING NO 00089171	SHIPMENT DATE 09/17/2008							
SPECIFICATION ChiWire-87246 AMS 2301J AMS 6322N 8740 DFARS Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spherodize Annealed In Process Heavy Phos & Light Lube Ctd Size: .2465 +.001 -.000												
CERTIFICATION REQUIREMENTS												
Chemical												
C	Mn	P	S	Si	Al	Ni	Cr	Mo	Cu	V		
.40	.89	.013	.010	.27	.027	.47	.49	.22	.02	.004		
Cb	Ti	N	Sn									
.001	???????	.0040	.002									
Physical												
AMS 2301	J1	J10	J11	J12	J2	J3	J5	J4	J6	J7	J8	J9
0000	58	43	40	34	57	56	55	56	54	52	50	46
MacroClean E-381 212												
Mechanical												
TEST	UNITS		HIGH		LOW		AVERAGE					
Tensile Str	Lbs/SqIn		85000		83000		84000					
RA Per Cent	Percent		75.2		67.8		71.4					
Decarb FFD	Inches		.000		.000		.000					
Surface def. depth	Inches		.000		.000		.000					
Rod / Melt Source												
Rod Source	Melt Source	Country of Origin		Nafta								
Republic	Republic	USA		Yes								

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

D. L. Deetscreek
D. L. Deetscreek
Director of Quality Assurance

SEP. 12. 2008 3:18PM J.W.T

NO. 725 P. 6


 1807 EAST 28TH ST.
 PHONE: 330-438-5694

 LORAIN, OH 44051
 FAX: 330-438-5694

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

 May 30, 2008
 PAGE 1

OF 2

 PURCHASE ORD: 3V361
 PART NUMBER: PXT40AA-.313
 ORDER NUMBER: 1373684 - 01
 HEAT: 7566459
 CHARGE ADDRESS

 PURCHASE ORDER DATE: 3/5/2008
 ACCOUNT NUMBER: 5672-1920-01
 SCHEDULE: 1611-85
 REVISION: 1

SHIP TO

 JOHNSTOWN WIRE TECHNOLOGIES
 124 LAUREL AVE
 JOHNSTOWN, PA 15906

 JOHNSTOWN WIRE TECHNOLOGIES
 EDWARD ZAPOLA
 124 LAUREL AVE
 TRUCK STOP 9 ROD DOCK
 JOHNSTOWN, PA 15904

MATERIAL DESCRIPTION

 HOT ROLLED STEEL COILS ALLOY AMS 2301J JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA
 10.3 AMS 6322N EXC HARD JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE DEFECTS
 JOHNSTOWN WIRE SPEC PART NO. PXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND B-1 EXC MARK &
 UT WAIVED BF-AISI-8740-H FINE GRAIN VACUUM DEGASSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY
 RESTRICTED CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
 SIZE: RDS .3130 DIAM X COIL
 RDS 7.9502MM DIAM X COIL

LADLE CHEMISTRY %

C	MN	P	S	SI	CU	NI	CR
0.40	0.89	0.013	0.010	0.27	0.02	0.47	0.49
V	MO	SN	AL	B	CB	N	
0.004	0.22	0.002	0.027	0.0001	0.001	0.0040	

CALCULATED TESTS

REDUCTION RATIO 2,324.3 TO 1

 AUSTENITIC GRAIN SIZE 5 OR FINER BASED ON A TOTAL ALUMINUM CONTENT EQUAL TO OR GREATER THAN .020% PER
 ASTM A29.

SEMI - FINISHED RESULTS

 JOMINY HARDNESS TEST SAE J406/ASTM A255
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
 58 57 56 55 54 52 50 46 43 40 34 33 33 33 32 31 30 29 29 28 28 28

 MACRO ETCH TEST ASTM E381/MIL STD 430
 ETCHANT: HCL TEMPERATURE: 170
 S R C
 PCE 111 2 1 2

 MAGNETIC PARTICLE TEST AMS 2301 AMS2304 AMS2300
 IND AVG IND AVG
 FREQ FREQ SEV SEV
 PCE 03 0 0 0 0

FINISHED SIZE RESULTS

 DECARBURIZATION TEST SAE J419/ASTM E1077
 ETCHANT - NITAL MAGNIFICATION - 100X

	SPIKE INCHES	COMPLETE INCHES	TOTAL DEPTH INCHES
PCE 7772	0.002	0	0.001

CAPABLE OF SEAM DEPTH 1% MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019,

 R. A. SZELIGA
 MANAGER TECH. SERVICES

BY JANET K. HARTLINE

R. A. Szeliga

SEP. 12. 2008 3:18PM

JWT

NO. 725

P. 7



Republic

ENGINEERED PRODUCTS

1807 EAST 28TH ST.
PHONE: 330-438-5694

LORAIN, OH 4405.
FAX: 330-438-5691

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

May 30, 2008

PAGE 2

OF 2

PURCHASE ORD: 3V361
PART NUMBER: FKT40AA-.113
ORDER NUMBER: 1373684 - 01
HEAT: 7566459
LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

PURCHASE ORDER DATE: 3/5/2008
ACCOUNT NUMBER: 5672-1920-01
SCHEDULE: 1611-85
REVISION: 1

REPUBLIC ENGINEERED PRODUCTS HEREBY CERTIFY THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND

NOTES (CONTINUED)
TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED

SOURCE INFORMATION
MELT SOURCE: LORAIN BLOOM MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: BOF BLOOM RED. RATIO: 2324.3

END OF DATA CC END OF DATA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA 1-814-532-5684
WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FILE 1 COPY

R. A. SZELIGA
MANAGER TECH. SERVICES

R. A. Szeliga

BY JANET K. HARTLINE

DE TRAY

Plating Works

Specialized Electro-Plating and Polishing
Nickel
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Decorative Chrome
Satin Chrome
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Cadmium
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Strip Copper
Descale

10406 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@Aol.com

April 02, 2009

Mac Fasteners
1110 East Enterprise Street
Ottawa, Kansas 66067

Subject: Certification

This is to certify that the following parts have been stress relieved for 4 hours at 375+/-25 before cleaning cadmium plated per QQ-P-416/AMS-QQ-P-416/NAS4160, Type II, Class 2. Please reference our Invoice #133863 dated 04/02/09 for:

Lot#-38674

P.N.-AN4-20A

James T. Pierson, Vice-President



DE TRAY PLATING WORKS



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
7	200	EA	AN4-14A		68538	MAC FASTENERS	0RPT4		


Jason Lewis
Senior Director, Global Quality

03/16/15

Inv # 03/16/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0PZH84

PART NUMBER: AN4-14A

REV: 2

LOT NUMBER: 68538

MANUFACTURED QUANTITY: 110,000

MILL HEAT NUMBER: 8193290

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 01/22/14


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company- SAI GLOBAL - 0058029

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0PZH84

PART NUMBER: AN4-14A ✓

REV: 2

LOT NUMBER: 68538 ✓

MANUFACTURED QUANTITY: 110,000

MILL HEAT NUMBER: 8193290 ✓

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

SIKORSKY
3534
DOR
MAY 01 2014

5/1/14

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 01/22/14


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company- SAI GLOBAL - 0058029

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER 0PZH84	MFG QUANTITY 110,000	DATE 01/22/14
PART NUMBER AN4-14A	REV 2	LOT NO 68538	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8193290			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.40	.24	.77	.010	.010	.10	.52	.58	.26	.002			.023	
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	
		.0060							.005				

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
5,770	
5,710	
5,720	
5,730	
5,750	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
8,180	
8,130	
8,140	
8,160	
8,190	
MIN. REQ.	7,360

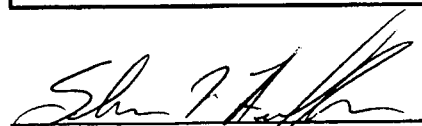
HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
28 - 30 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3	System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22	System <input type="checkbox"/> 23

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Recess Torque Test	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Magnetic Permeability ASTM A342 less than 2.0	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

AS9100C REGISTERED
SAI GLOBAL - 0058029

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: B/E AEROSPACE

DATE: 01/22/14

PO NUMBER: 0PZH84

MANUFACTURED QUANTITY: 110,000

PROCESSOR:

PAULO PRODUCTS KCMO - NADCAP ID 4679

LOT NUMBER: 68538

MATERIAL: TYPE 8740

PART NUMBER: AN4-14A

REVISION: 2

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 28 - 30 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

Notes:

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company - SAI GLOBAL - 0058029



Johnstown Wire Technologies

124 Laurel Ave,
Johnstown, PA 15906

Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
800310

TEST REPORT

LOT NUMBER
K-8193290

SALES ORDER / RLS
002318 / 1

SOLD TO

Mac Fasteners, Inc.
C/O TD Logistics Inc.
14505 W 100th Street
Lenexa, KS 66215
USA



CUSTOMER P.O. 50516	CUSTOMER PART 8740- .2465	QUANTITY 39,644 LBS	COILS 20	LADING NO 00119854	SHIPMENT DATE 09/20/2013							
SPECIFICATION MacFast-87246 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS TS 95000 PSI Max Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In Process Heavy Phos & Light Lube Ctd Size: .2465 +.0005 -.0005												
CERTIFICATION REQUIREMENTS												
Chemical												
C	Mn	P	S	Si	Al	Ni	Cr	Mo	Cu	V		
.40	.77	.010	.010	.24	.023	.52	.58	.26	.10	.002		
Cb	Ti	N	Sn									
.000	????????	.0060	.005									
Physical												
AMS 2301	J1	J10	J11	J12	J2	J3	J5	J4	J6	J7	J8	J9
0000	56	40	38	36	55	55	53	54	52	50	46	43
MacroClean E-381 111												
Mechanical												
TEST	UNITS		HIGH		LOW		AVERAGE					
Tensile Str	Lbs/SqIn		86000		84000		85000					
RA Per Cent	Percent		73.8		67.2		70.3					
Decarb FFD	Inches		.000		.000		.000					
Surface def. depth	Inches		.001		.001		.001					
Rod / Melt Source												
Rod Source Republic	Melt Source Republic		Country of Origin USA		Nafta Yes							
End of Certification												

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

Daniel J. Malik
Daniel J. Malik Director of Quality Assurance 31



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHONE: 330-438-5580LORAIN, OH 44055
FAX: 330-438-5695

REPUBLIC STEEL

6/24/2013
2:46:00 PM
PAGE 1 OF 2PURCHASE ORD: 84084
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1547434 - 01
HEAT: 8193290PURCHASE ORDER DATE: 3/4/2013
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 4927-93
REVISION: 1

CHARGE ADDRESS

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906

SHIP TO

JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & BL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

MATERIAL DESCRIPTION

HOT ROLLED STEEL COILS ALLOY AMS 2301K JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA
10.3 AMS 6322N EXC HARD JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE DEFECTS
JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND B-1 EXC MARK &
UT WAIVED 2F-AISI-8740-H FINE GRAIN VACUUM DEGASSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY
RESTRICTED CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RDS .3750 DIAM X COIL
RDS 9.5250MM DIAM X COIL

LADLE CHEMISTRY %

C	MN	P	S	SI	CU	NI	CR
0.40	0.77	0.010	0.010	0.24	0.10	0.52	0.58
V	MO	SN	AL	B	CB	N	
0.002	0.26	0.005	0.023	0.0000	0.000	0.0060	

CALCULATED TESTS

REDUCTION RATIO 1,177.6 TO 1

AUSTENITIC GRAIN SIZE 5 OR FINER BASED ON A TOTAL ALUMINUM CONTENT EQUAL TO OR GREATER THAN .020% PER ASTM
A29.

SEMI - FINISHED RESULTS

JOMINY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
56 55 55 54 53 52 50 46 43 40 38 36 36 34 33 32 31 30 30 29 29 29 28 28MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
AVG S R C
1 1 1MAGNETIC PARTICLE TEST AMS 2301 AMS2304 AMS2300
IND AVG IND AVG
FREQ FREQ SEV SEV
PCE 03 0 0 0 0

FINISHED SIZE RESULTS

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT = NITAL MAGNIFICATION = 100X

	SPIKE INCHES	COMPLETE INCHES	TOTAL DEPTH INCHES
PCE 6581	0.002	0	0.002

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHONE: 330-438-5680

REPUBLIC STEEL

LORAIN, OH 44055
FAX: 330-438-5695

6/24/2013
2:46:00 PM
PAGE 2 OF 2

PURCHASE ORD: 84084
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1547434 - 01
HEAT: 8193290

PURCHASE ORDER DATE: 3/4/2013
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 4927-93
REVISION: 1

CAPABLE OF SEAM DEPTH 1 $\frac{1}{2}$ MAX DIAMETER NOT LESS THAN .005 MAX

NOTES
CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019,
LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

REPUBLIC STEEL HEREBY CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN

NOTES (CONTINUED)
ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF
SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED
AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE
DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED.

SOURCE INFORMATION
MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: BP BLOOM RED. RATIO: 1177.6

END OF DATA CC END OF DATA
WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA 1-814-532-5684
FILE 1 COPY

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

COMMERCIAL PLATING COMPANY

TC-4500 XRF ST

Fri Sep 19 03:48:24 1997

COMMERCIAL PLATING CERTIFICATION AND TEST RESULTS

This is to certify that the order described below was plated to comply with the agreed upon requirements of the requested specification.

DATE: 01/18/14

CUSTOMER: MAC FASTENERS

PART NUMBER: AN4-14A

DESCRIPTION: BOLT

ORDER NUMBER: 94031

LOT NUMBER: 68538

TOTAL WEIGHT: 2972 LBS

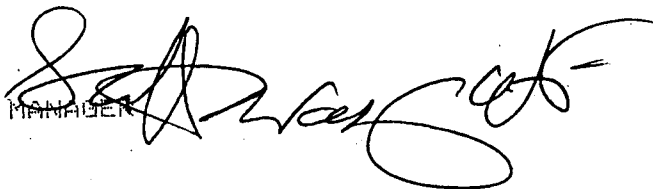
PIECES PLATE TO GAUGE: Y

SPECIFICATION: SAE AMS QQ-P-416C, TYPE II, CLASS 2

REQUIREMENTS: 0.0003 CAD. MIN. AND YELLOW CHROMATE

AUTHORIZED SIGNATURE:

TITLE: QUALITY CONTROL MANAGER



MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER 0PZH84	MFG QUANTITY 110,000	DATE 01/22/14
PART NUMBER AN4-14A	REV 2	LOT NO 68538	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8193290			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.40	.24	.77	.010	.010	.10	.52	.58	.26	.002			.023	
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	
		.0060							.005				

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
5,770	
5,710	
5,720	
5,730	
5,750	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
8,180	
8,130	
8,140	
8,160	
8,190	
MIN. REQ.	7,360

SIKORSKY
3534
DOR
MAY 01 2014

HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
28 - 30 HRC	

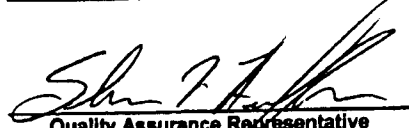
5/1/14

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3		System 21 <input type="checkbox"/>	System 22 <input checked="" type="checkbox"/> System 23 <input type="checkbox"/>

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Recess Torque Test	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Magnetic Permeability ASTM A342 less than 2.0	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

AS9100C REGISTERED
SAI GLOBAL - 0058029

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: B/E AEROSPACE

DATE: 01/22/14

PO NUMBER: 0PZH84

MANUFACTURED QUANTITY: 110,000

PROCESSOR:

PAULO PRODUCTS KCMO - NADCAP ID 4679

LOT NUMBER: 68538 ✓

MATERIAL: TYPE 8740

PART NUMBER: AN4-14A ✓

REVISION: 2

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 28 - 30 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001 ✓

Notes:

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company - SAI GLOBAL - 0058029

SLIPSTY
3534
DOR
MAY 01 2014

5/1/14



Johnstown Wire Technologies

124 Laurel Ave,
Johnstown, PA 15906

Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
800310

TEST REPORT
LOT NUMBER
K-8193290
SALES ORDER / RLS
002318 / 1

SOLD TO

Mac Fasteners, Inc.
C/O TD Logistics Inc.
14505 W 100th Street
Lenexa, KS 66215
USA



CUSTOMER P.O. 50516	CUSTOMER PART 8740- .2465	QUANTITY 39,644 LBS	COILS 20	LADING NO 00119854	SHIPMENT DATE 09/20/2013							
SPECIFICATION MacFast-87246 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS TS 95000 PSI Max Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In Process Heavy Phos & Light Lube Ctd Size: .2465 +.0005 -.0005												
CERTIFICATION REQUIREMENTS												
Chemical												
C .40	Mn .77	P .010	S .010	Si .24	Al .023	Ni .52	Cr .58	Mo .26	Cu .10	V .002		
Ca .000	Ti ???????	N .0060	Sn .005									
Physical												
AMS 2301 0000	J1 56	J10 40	J11 38	J12 36	J2 55	J3 55	J5 53	J4 54	J6 52	J7 50	J8 46	J9 43
MacroClean E-381 111												
Mechanical												
TEST	UNITS	HIGH	LOW	AVERAGE								
Tensile Str	Lbs/SqIn	86000	84000	85000								
RA Per Cent	Percent	73.8	67.2	70.3								
Decarb FFD	Inches	.000	.000	.000								
Surface def. depth	Inches	.001	.001	.001								
Rod / Melt Source												
Rod Source Republic	Melt Source Republic	Country of Origin USA	Nafta Yes									
End of Certification												

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

Daniel J. Mallik
Daniel J. Mallik Director of Quality Assurance

SKORCH
2534
DOR
MAY 01 2014



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHOENIX: 330-438-3580LORAIN, OH 44055
FAX: 330-438-8695

REPUBLIC STEEL

6/24/2013
2:46:00 PM
PAGE 1 OF 2PURCHASE ORD: 84084
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1547434 - 01
HEAT: 8193290PURCHASE ORDER DATE: 3/4/2013
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 4927-93
REVISION: 1

CHARGE ADDRESS

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906

SHIP TO

JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & BL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

MATERIAL DESCRIPTION

HOT ROLLED STEEL COILS ALLOY AMS 2301X JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA
10.3 AMS 6322N EXC HARD JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE DEFECTS
JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL 8 6049A & AND 1 COND B-1 EXC MARK &
UT WAIVED 8F-AISI-8740-H FINE GRAIN VACUUM DEGAUSS AIRCRAFT QUALITY FIXED PRACTICE QUALITY
RESTRICTED CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RDS .3750 DIAM X COIL
RDS 9.5250MM DIAM X COIL

LADLE CHEMISTRY

C	MN	P	S	SI	CU	NI	CR
0.40	0.77	0.010	0.010	0.24	0.10	0.52	0.58
V	MO	SN	AL	B	CB	N	
0.002	0.26	0.005	0.023	0.0000	0.000	0.0060	

CALCULATED TESTS

REDUCTION RATIO 1,177.6 TO 1

AUSTENITIC GRAIN SIZE 5 OR FINER BASED ON A TOTAL ALUMINUM CONTENT EQUAL TO OR GREATER THAN .020% PER ASTM A29.

SEMI - FINISHED RESULTS

JOMINY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
56 55 55 54 53 52 50 46 43 40 38 36 36 34 33 32 31 30 30 29 29 29 28 28MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
AVG S R C
1 1 1MAGNETIC PARTICLE TEST AMS 2301 AMS2304 AMS2300
IND AVG IND AVG
FRBQ PRBQ SEV SEV
PCR 03 0 0 0 0

FINISHED SIZE RESULTS

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT = NITAL MAGNIFICATION = 100X

SPINE	COMPLETE	TOTAL
INCHES	INCHES	DEPTH
PCR 6581 0.002	0	0.002

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

SKORSHY
3534
DOR
MAY 01 2014



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
SHOWE: 330-438-5580

REPUBLIC STEEL

LORAIN, OH 44055
FAX: 330-438-5695

6/24/2013
2:46:00 PM
PAGE 2 OF 2

PURCHASE ORD: 84084
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1547434 - 01
HEAT: 8193290

PURCHASE ORDER DATE: 3/4/2013
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 4927-93
REVISION: 1

CAPABLE OF SEAM DEPTH 1/8 MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019, LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

REPUBLIC STEEL HEREBY CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN

NOTES (CONTINUED)

ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED.

SOURCE INFORMATION

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: EF BLOOM RED. RATIO: 1177.6

END OF DATA

CC

END OF DATA

WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA 1-814-532-5684
FILE 1 COPY

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

MT Kruth

5/1/14
SKORSKY
3534
DOR
MAY 01 2014

COMMERCIAL PLATING COMPANY

TC-4500 XRF ST

Fri Sep 19 03:48:24 1997

COMMERCIAL PLATING CERTIFICATION AND TEST RESULTS

This is to certify that the order described below was plated to comply with the agreed upon requirements of the requested specification.

DATE: 01/18/14

CUSTOMER: MAC FASTENERS

PART NUMBER: AN4-14A

DESCRIPTION: BOLT

ORDER NUMBER: 94031

LOT NUMBER: 68538

TOTAL WEIGHT: 2972 LBS

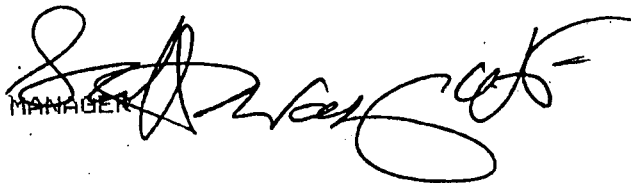
PIECES PLATE TO GAUGE: Y

SPECIFICATION: SAE AMS QQ-P-416C, TYPE II, CLASS 2

REQUIREMENTS: 0.0003 CAD. MIN. AND YELLOW CHROMATE

AUTHORIZED SIGNATURE:

TITLE: QUALITY CONTROL MANAGER



SKORSKY
3534
DOR

MAY 01 2014

5/1/14



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
13	100	EA	CR3213-4-03		87466026	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Senior Director, Global Quality

03/16/15

Inv # 03/16/15



CHERRY®
AEROSPACE

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0321670 Page: 1
Order Date: 04/29/08
Print Date: 05/24/11



Sold-To: 10015341

Ship-To: 19000244

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC C.M.
	10000 N.W. 15TH TERRACE
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0EZ574

Credit Terms: Net 30
Net 30

Ship Via: YRC

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

TEST REPORTS ENCLOSED

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010
TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

DO NOT DESTROY

Ln	Item Number	Site T Location/Lot/Serial	Qty Open Qty to Ship UM	Promised Shipped	
17	CR3213-4-03 Customer Item: ASNA0078A403 B0207005-4-03 CAN43078B4-3 M7885/2-4-03 NAS9301B-4-03 NAS9301BNS-4-03 *IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I *PREFERENCE FOR DOMESTIC SPECIALTY METALS	1600		EA	07/15/11
	1 8803300010 87466045	C0503	32095.0	()	
	1 87466042	C0903	34600.0	()	
	1 87466024	D0402	33895.0	()	

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed

SIM NGUYEN



**CHERRY®
AEROSPACE**

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0321670 Page: 2
Order Date: 04/29/08
Print Date: 05/24/11



Sold-To: 10015341

Ship-To: 19000244

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B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

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B/E AEROSPACE INC C.M.
10000 N.W. 15TH TERRACE
MIAMI, FL 33172
USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
17					
		D0403 87466034	29000.0	()	
		EZLINE-2 87479181	33400.0	()	
		F0904 87466032	35000.0	()	
		G0404 87479187	31025.0	()	
		I0502 87466027	34656.0	()	
		O0301 87466028	34126.0	()	
18	CR3213-4-03	1600		EA	07/15/11
	Customer Item: ASNA0078A403				
	B0207005-4-03				
	CAN43078B4-3				
	M7885/2-4-03				
	NAS9301B-4-03				
	NAS9301BNS-4-03				
	*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I				
	*PREFERENCE FOR DOMESTIC SPECIALTY METALS				
		B0505 87484144	33519.0	()	
		C0205 87487497	32496.0	()	
		D0705 87466026	31800.0	()	
		EZ LINE 87487495	34217.0	()	
		EZ LINE 87488616	33740.0	()	
		EZLINE-2 87466025	33500.0	()	

**TEST REPORTS ENCLOSED
DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY®****AEROSPACE**

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA

**PACKING LIST**

Order No.: S0321670 Page: 3

Order Date: 04/29/08

Print Date: 05/24/11



Sold-To: 10015341

Ship-To: 19000244

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B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

S
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B/E AEROSPACE INC C.M.
10000 N.W. 15TH TERRACE
MIAMI, FL 33172
USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
18		EZLINE-2 87487496	34028.0	()	
		H1002 87487494	32300.0	()	
		L0402 87487493	34400.0	()	
19	CR3213-4-03	1600		EA	07/15/11
	Customer Item: ASNA0078A403				
	B0207005-4-03				
	CAN43078B4-3				
	M7885/2-4-03				
	NAS9301B-4-03				
	NAS9301BNS-4-03				
	*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I				
	*PREFERENCE FOR DOMESTIC SPECIALTY METALS				
		C0405 87466035	34241.0	()	
		EZ LINE 87466029	34360.0	()	
		EZ LINE 87466044	33200.0	()	
		EZ LINE 87485861	33167.0	()	
		EZLINE-2 87466021	31247.0	()	
		L0102 87484141	33180.0	()	
		L0202 87466048	34709.0	()	
		N0203 87466049	33820.0	()	
		N0403 87466030			

TEST REPORTS ENCLOSED
DO NOT DESTROY

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY AEROSPACE**

SPS Aerospace Division, a PCC Company



Accredited

Chemical Processing

Heat Treating

ISO/IEC 17025

Material Testing Lab

1224 East Warner Avenue
Santa Ana, CA 92707-0157**Final Inspection & Test Report****CherryMax® Rivet****An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev
CR3213-4-03	AA	PS-CMR-3000	R
** See 2nd Page for the Customer Parts			

Lot I.D. No.: 87466026**Lot Size: 32,000****MFG. Date: April 27, 2011****ASSEMBLY DATA**

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87466026	A65901	QQ-A-430/5056	MIL-C-5541 CLEAR CL1A	None
Stem	87464206	A66557	AMS6322 / 8740ST	QQ-P-416/T2CL2/CAD PL	None
Collar	00000000	A66926	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5429924

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS RESULTS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION			DISASSEMBLY
	584		285		125			10
	8	N/A	8	N/A	5	8	N/A	5
	C-N-M	B	C-N-M	B	C-N-M	M	B	C-N-M
906			389		277	256		35
927			382		271	235		43
918			390		314	239		47
911			378		285	259		52
911			408		292	248		38
926			394			247		
938			397			245		
921			403			248		

C=CR N=NAS
M=MIL B=BAC
LOAD VALUES
IN POUNDPCS. ITEM
20 EXAMINATIONSTATUS
PASSPCS. ITEM
20 INSTALLATION (Min and Max Grips)STATUS
PASS**Comments:**

Blind Fastener

Tr. Rev: -
Rev. Date: 4/27/2011**Q Code**
V09Inspector
I Reyes

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

KAISER ALUMINUM

SANTA ANA, CA 92705-5414

CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		OTHERS	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
	5056		0.30		0.40		0.10	0.05	0.20	4.50	5.60	0.05	0.20	0.05	0.15
		NICKEL		ZINC		TITANIUM		LEAD		BISMUTH					
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
					0.10										
ALUMINUM REMAINDER															

KAISER ALUMINUM FABRICATED PRODUCTS

Kaiser Aluminum & Chemical
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CERTIFIED TEST REPORT
<http://Certs.KaiserAluminum.com>

Specifications

QQA-430 REV C

Miscellaneous Notes

Made in USA

Product produced from K540 meets the requirements of aluminum alloy 5056

Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-07. The Newark facility is AS9100B:2004 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).



DEC 16 2010

Kaiser Aluminum Fabricated
K645426



A65901

CERTIFICATION

Kaiser Aluminum & Chemical Corp Inc. ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

John R. Despina, Technical Manager

John R. Despina

Plant Serial: 10125

Kaiser Order Number: 214520770

Page 2 of 2

Line Item: 1



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

CHERRY AEROSPACE LLC
1224 E. WARNER AVENUE
SANTA ANA, CA 92705-5414
USA

WORK ORDER
081246

CERTIFICATION

HEAT NO.
10070600
SALES ORDER / RLS
838224 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CUSTOMER P.O. VPO092778	CUSTOMER PART M272.1040	QUANTITY 4,101 Lbs	CARRIERS 3	LADING NO 00088451	SHIPMENT DATE 02/22/2011			
SPECIFICATION C208740-101040A A-8740, AQ, SKFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.103/0.105 Specifications: AMS2301H, AMS6322N, MIL-S-6049A, AMEND1, ASTM-A-547, AMS-S-6049-A, M 272.1040 REV. P.								
CERTIFICATION REQUIREMENTS								
Chemical Properties								
C	Si	Mn	P	S	Cu	Ni	Cr	Mo
.41	.25	.96	.009	.008	.12	.42	.42	.21
Physical Properties								
Grain Size Jominy 1	Jominy 2	Jominy 3	Inclusions	Macro	Cleanliness	Mill Source		
6 J5=52	J8=41	J10=36	S2-R1-C2	GOOD	F&S=0	Charter		
Country of Origin								
USA - DFAR Compliant								
Mechanical Properties								
TEST	UNITS					Results		
Tensile Strength	KSI					128.4		
Yield Strength	KSI					109.2		
% Elongation	%					3.5		
% Reduction of Area	%					60.8		
Rockwell Hardness C Scale	HRC					27		
Decarb (Total)	In					0.00		

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47.
 REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.
 Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140.
 The reported Chemical and Physical Properties are Melt Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.
 TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.
 LATEST REVISIONS OF ASTM

Material is free of mercury, radium, or alpha contamination.

A66557

WireTech
10070600



MAR 19 2011

HB

CHARTER
STEEL

**CHARTER
STEEL**

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080
(262) 268-2400
1-800-437-8789
FAX (262) 268-2570

CHARTER STEEL TEST REPORT
Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Los Angeles, CA-90040
Kind Attn : Cert To Contact

Cust P.O.	6500-5
Customer Part #	8740C1A060-C-R
Charter Sales Order	70010384
Heat #	10070600
Ship Lot #	4025632
Grade	8740 R SK FG AQ 1/4
Process	HRSA
Finish Size	1/4

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10070600												
Lab Code: 7388	C	MN	P	S	SI	NI	CR	MO	CU	SN	V	
CHEM	.41	.96	.009	.008	.25	.42	.42	.21	.12	.008	.001	
%Wt												
	AL	N	B	TI	NB							
	.025	.0070	.0002	.002	.002							
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	58	57	56	54	52	48	44	41	38	36	35	33
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	33	32	31	31	30	29	29	29	28	28	28	28

JOMINY SAMPLE TYPE ENGLISH = R JOMINY LAB = 0358-01
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .05 AMS 2301 FREQUENCY INDIVIDUAL = .13
AMS 2301 SEVERITY AVERAGE = .03 AMS 2301 SEVERITY INDIVIDUAL = .10
CHEM. DEVIATION EXT. -GREEN =

MAR 19 2011



Test Results of Rolling Lot# 1012688				
REDUCTION RATIO = 616:1				
Test Results of Processing Lot# 4025411, 4025632				
	# of Tests	Min Value	Max Value	Mean Value
TENSILE	2.0	85.6	86.9	86.3
REDUCTION OF AREA	2	63	65	64
ROCKWELL B	2	82	83	82
NUM DECARB = 1	FREE FERRITE DECARB = .000	FREE FERR & PARTIAL DECARB = .003		
CP SPHERO % LAB = 0358-02	NUM SPHERO = 1	SPHERODIZATION = 80.0		

Specifications: Manufactured per Charter Steel Quality Manual Rev 8.12-05-07
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3010 Revision = M Dated = 12-MAR-03

Additional Comments: MEETS REQUIREMENTS OF SPECIFICATIONS AMS6322N/AMS2301J/MIL-S-6049A

Charter Steel
Saukville, WI, USA



Page 1 of 1

Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/07/2010

Rem: Load1, Fax0, Mail0

Certificate of Analysis

Radcliff Wire Inc. — 97 Ronzo Rd., P.O. Box 603, Bristol, CT 06010

Date Shipped: 4/12/2011

PO #: P0124411

Qty. Shipped: 32 LBS-2-BLACK
MIG SPOOLS

Radcliff No.: 120614

Heat No.: Z1375MK13

Customer: CHERRY AEROSPACE
SANTA ANA OPERATIONS
1224 EAST WARNER AVE
SANTA ANA, CA 92705-5414

Country of Origin: USA

Original Mill Source: USA

Size: .006 X .011 X .056 ***

Material: A286 Stainless Steel

Description: SPECIAL SHAPE

Specification: AMS 5731 REV L, AMS 5737 REV P
CHEM ONLY

Notes:

DFAR COMPLIANT
NET WGT 32 LBS
PART# M189.44 REV W

Chemical Properties

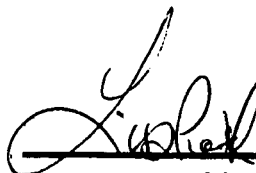
Al: 0.17%	B: 0.006%	Bi: PPM<0.1%	C: 0.04%	Co: 0.06%
Cr: 14.57%	Cu: 0.06%	Fe: 56.57%	Mn: 0.11%	Mo: 1.26%
Ni: 24.52%	P: 0.007%	Pb: PPM0.3%	S: 0.003%	Si: 0.18%
Ti: 2.14%	V: 0.3%			

APR 23 2011

Tensile: 96 KSI

Rockwell:

Certs/Material



Lisa Piatek

Certification Clerk

The material as shipped is free from mercury contamination

RADCLIFF WIRE, INC.
Z1375MK13



A66926

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

P

HUNTINGTON, WEST VIRGINIA 25705-1771

REV. AND

SPECIFICATIONS: A-1 A286 RESTRICTED FOR CUST 187, 1250, 211 REV 9-30-08\ UNS:S66286

SAE AMS 5731L CHEM ONLY\SAE AMS 5732J CHEM ONLY\
SAE AMS 5734K CHEM ONLY\SAE AMS 5737N CHEM ONLY\
SAE AMS 5726D CHEM ONLY\GE C50TF35-S4 AM 7 CLASS A CHEM ONLY\
SPS-M-118 REV L CHEM ONLY\GE S-400 (10-31-07)\
GE S-1000 (1-2-2008)\
HEAT TREAT & STRESS RUPTURE CAPABILITY TESTING.\
QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125);
EN 10 204/DIN 50049 (TYPE 3.1)

A66926



RADCLIFF WIRE, INC.-F
71375MK13

HEAT#	CHEMICAL ANALYSIS (WT. %)								
	C TI	MN CO	FE MO	S P	SI B	CU PB/PPM	NI BI/PPM	CR V	AL
Z1375MK	0.04	0.11	56.57	0.003	0.18	0.06	24.52	14.57	0.17
	2.14	0.06	1.26	0.007	0.006	0.3	<0.1	0.30	

TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.
MELT METHOD: VIM + ELECTROSLAG REMELTED

APR 23 2011

~~SECRET~~

		MECHANICAL PROPERTIES						
HEAT/LOT	QUANTITY	HARD NESS	GRAIN SIZE	YIELD .2XPSI X 100 X 100	TENSILE PSI X 100	XLG	R/A X	DEG F
Z1375MK								
ROOM TEMP-	-CAPABILITY **		1022	1595	28.1	51.5		
ROOM TEMP-	-CAPABILITY **		1113	1647	26.8	49.1		
HARDNESS -HRC	-CAPABILITY	29.7						
HARDNESS -HRC	-CAPABILITY	27.6						
STRESS RUPTURE-CAPABILITY		1200	DEG F/ 75,000	PSI	STRESS/ 062.0	HRS /	9.8XLG IN 4D	/16.2XRA

HUNTINGTON ALLOYS CORPORATION
A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25706-1771

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT
STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE
AS A FELONY UNDER FEDERAL STATUTE.

WESTERN U.S.

P

A-1 WIRE TECH 840 AIRPORT DR ROCKFORD, IL 61109	CERTIFIED MATERIAL TEST REPORT		No.	84052
	HA ORDER NO./ITEM	DATE	PAGE	OF
	300018997 1	06/24/09	3	3
	QUANTITY	INSPECTED BY		
A-1 WIRE TECH INC 4550 KISHWAUKEE ST ROCKFORD IL 61109	7332 LBS	HA/SMC		
	CHARGE ORDER NO.	MARK ORDER NO.		
	22351-2	22351-2		
	DESCRIPTION OF MATERIAL SHIPPED	INCOLOY ALLOY A-286 VIN-ESR HR ROD - COIL PKL ANN .3120 IN COIL COIL		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS
AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE
ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT
REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL
FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE.
THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL
COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS.
WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN
ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. 808

"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE),
ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 31, 2011)."

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :
W.E. BOLEN, P.D. CUSTER, M.A. MORRISON, P. WAUGH, D.K. MILLER

CERTIFIED TESTING LABORATORY DATA SOURCE IN II

AEBG VENDOR NO. 47150

M.R.B. CASE RECORD NO.: NONE

AUTHORIZED VENDOR SIGNATURE

DATE: 06/24/09

APR 23 2011

A66926



RADCLIFF WIRE, INC.-
Z1375MK13

HUNTINGTON ALLOYS CORPORATION

A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25705-1771

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

WESTERN U.S.

P

A-1 WIRE TECH 840 AIRPORT DR ROCKFORD, IL 61109	CERTIFIED MATERIAL TEST REPORT		No.	84052	THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS. REV. 8/08
	HA ORDER NO./ITEM	DATE	PAGE	OF	
300018997 1	06/24/09	2	3		
QUANTITY	INSPECTED BY				
7332 LBS	HA/SMC				
A-1 WIRE TECH INC 4550 KISHWAUKEE ST ROCKFORD IL 61109	CHARGE ORDER NO.		MARK ORDER NO.		
	22351-2		22351-2		
DESCRIPTION OF MATERIAL SHIPPED		INCOLOY ALLOY A-286 VIN-ESR HR ROD - COIL PKL ANN .3120 IN COIL COIL			

STRESS WAS INCREASED PER SPECIFICATION OPTION TO INDUCE EARLY FRACTURE

STRESS RUPTURE SPECIMEN DIAMETER - .250"
HEAT TREAT #2

STRESS RUPTURE-CAPABILITY 1200 DEG F/ 70,000 PSI STRESS/ 073.1 HRS / 33.4XEL IN 4D /46.8XRA/

STRESS WAS INCREASED PER SPECIFICATION OPTION TO INDUCE EARLY FRACTURE
STRESS RUPTURE SPECIMEN DIAMETER - .250"
HEAT TREAT #1

Z1375MK 13 9 PCS
ROOM TEMP-HRB -AS SHIPPED *** 76.0 0380 0899 47.8 70.6

GRAIN SIZE-AS SHIPPED AGS ASTM NO. 8.
NORMAL - TRAN
** TENSILE SPECIMEN GAUGE LENGTH - 4 X DIAMETER
*** TENSILE SPECIMEN GAUGE LENGTH - 01.500

APR 23 2011



YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

CAPABILITY HEAT TREAT #1: HEATED AT 1650 DEG F 30 MINUTES, WATER QUENCHED.
THEN HEATED AT 1325 DEG F 16 HOURS, AIR COOLED.

CAPABILITY HEAT TREAT #2: HEATED AT 1800 DEG F 30 MINUTES, WATER QUENCHED.
THEN HEATED AT 1325 DEG F 16 HOURS, AIR COOLED.

NO WELDING OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON,SULFUR,NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES.
ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

A66926



RADCLIFF WIRE, INC.-
Z1375MK13



A-1 Wire Tech, Inc.

NORTH AMERICA'S PREMIER MANUFACTURER OF HIGH NICKEL & STAINLESS STEEL ALLOYS

4550 Kishwaukee Street
Rockford, Illinois 61109

Certified Material Test Report

HEAT/LOT

Load ID. 00080266

Z1375MK13

SOLD TO

Page 1

Radcliff Wire
97 Ronzo Road
Bristol, CT 06011-0603
USA

QUALITY SYSTEMS
Certificate 3.1 as in EN 10204
Material manufactured in accordance
with a quality management system
certified to ISO 9001:2008 by
ABS-QE (Certification No. 33373)

SALES ORDER

094922 / 1

Date Printed 08/12/2010

CUSTOMER P.O. 41848	CUSTOMER PART 116566	QUANTITY 381.00	PIECES 3	SHIPMENT DATE 08/12/2010						
PRODUCT: Alloy: A286 Diameter: .034" Temper: 1/8 Hard Finish: 7662861-034-50-ST										
CERTIFICATION REQUIREMENTS										
*As Shipped Properties										
TEST *Tensile	UNITS ksi	RESULTS 111								
Chemical Analysis %										
C	Mn	Si	P	S	Cr	Ni	Co	Ti	V	Fe
.04	.11	.18	.007	.003	14.57	24.52	.06	2.14	.3	56.57
Cu	Mo	B	Al	Pb	Bi					
.06	1.26	.006	.17	PPM.3	PPM<.1					
Specifications										
*Melt Source DEFARS COMPLIANT / MELT SOURCE: HUNTINGTON ALLOYS / COUNTRY OF ORIGIN: USA / MFG: USA										
Specification:										
APR 23 2011										
End of Certification										



Visual and dimensional examination
Satisfactory
Material, when shipped is free from
contamination by mercury, radium,
alpha source, and low melting
point elements.

This is to certify that all required samplings, inspections, operations and tests
performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the
specification requirements. The test report represents the actual attributes of the
material furnished and the values shown are correct and accurate. The material
described by this certificate is in full compliance with all order and inspection
requirements. We hereby certify that the above data are in accordance with the
specification requirements.

Suzanne Mullins

Suzanne Mullins
Quality Assurance Manager

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSSM, CSCM/CSCR	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSCM/CSCR	ASTM E572
Macroetch	CSSM, CSCM/CSCR	ASTM E381
Hardenability (Jominy)	CSSM, CSCM/CSCR	ASTM A255; SAE J406; JIS G0561
Grain Size	CSSM	ASTM E112
Tensile Test	CSSR/CSSP, CSFP, CSCM/CSCR	ASTM E8; ASTM A370
Rockwell Hardness	All labs	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSSR/CSSP, CSFP	ASTM A892
Inclusion Content (Methods A, E)	CSSR/CSSP, CSCM/CSCR	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/11.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.

MAR 19 2011

A66557
WireTech
10070690





WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

CHERRY AEROSPACE LLC
1224 E. WARNER AVENUE
SANTA ANA, CA 92705-5414
USA

WORK ORDER
081246

CERTIFICATION

HEAT NO.
10070600
SALES ORDER / RLS
838224 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	CARRIERS	LADING NO	SHIPMENT DATE
VPO092778	M272.1040	4,101 Lbs	3	00088451	02/22/2011

SPECIFICATION C208740-101040A
A-8740, AQ, SKFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating,
Size:0.103/0.105 Specifications: AMS2301H, AMS6322N, MIL-S-6049A, AMEND1, ASTM-A-547, AMS-S-6049-A, M
272.1040 REV. P.

CERTIFICATION REQUIREMENTS

Chemical Properties

C	Si	Mn	P	S	Cu	Ni	Cr	Mo
.41	.25	.96	.009	.008	.12	.42	.42	.21

Physical Properties

Grain Size	Jominy 1	Jominy 2	Jominy 3	Inclusions	Macro	Cleanliness	Mill Source
6 J5=52	J8=41	J10=36	S2-R1-C2	GOOD	F&S=0	Charter	

Country of Origin
USA - DFAR Compliant

Mechanical Properties

TEST	UNITS	Results
Tensile Strength	KSI	128.4
Yield Strength	KSI	109.2
% Elongation	%	3.5
% Reduction of Area	%	60.8
Rockwell Hardness C Scale	HRC	27
Decarb (Total)	In	0.00

MAR 19 2011



Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.
Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140.
The reported Chemical and Physical Properties are Mill Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.

TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.
"LATEST REVISIONS OF ASTM"

Material is free of mercury, radium, or alpha contamination.

A66557



CHERRY[®] AEROSPACE
SPS Heatreater Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited
Nadcap[™]

Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

Final Inspection & Test Report CherryMax[®] Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Lot I.D. No.: **87466026**

Rev: **-**

Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
NAS9301BNS-4-03	4	NAS1686	3
ASNA0078A403	N	MIL-R-7885	D2
ASNA0078A403	N	NAS1686	3
ASNA0078A403	N	PS-CMR-3000	R
B0207005-4-03	E	MIL-R-7885	D2
B0207005-4-03	E	NAS1686	3
B0207005-4-03	E	PS-CMR-3000	R
CAN43078B4-3	8	NAS1686	3
M7885/2-4-03	D	MIL-R-7885	D2
NAS9301B-4-03	4	NAS1686	3

Parts delivered in accordance with the standard amendments as agreed by Cherry/EADS.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

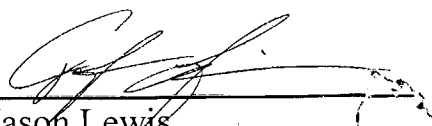
Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO27789

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
14	200	EA	CR3523-4-02		86895587	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Senior Director, Global Quality

Inv # 03/16/15



CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: SO308976 Page: 1
Order Date: 08/24/07
Print Date: 09/26/07



Sold-To: 10015341

Ship-To: 19000244

SOLD TO
M&M AEROSPACE HARDWARE
PO BOX 025263
MIAMI, FL 33102-5263
USA

SHIP TO
M&M AEROSPACE HARDWARE
10000 N.W. 15TH TERRACE
MIAMI, FL 33172
USA

Salesperson (s):110

Purchase Order: 0BN778

Credit Terms: 1%10,30
1%10, Net 30

Ship Via: YELLOW

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP WATKINS MOTOR LINE ACCOUNT# 018757 - DO NOT INSURE
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010
TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship UM	Promised Shipped
1	CR3523-4-02	1600		EA 09/27/07
	Customer Item: NAS9307M-4-02			
	* PART MEETS DFARS CLAUSE 252.225-7014 ALT I			
	* PREFERENCE FOR DOMESTIC SPECIALTY METALS			
		A0603 86895329	10500.0	()
		A1004 86895578	21200.0	()
		B0704 86895242	15100.0	()
		F0204 86895557	9500.0	()
		H0303 86895587	23200.0	()

TEST REPORTS
ENCLOSED DO
NOT DESTROY

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY** AEROSPACE1224 East Warner Avenue
Santa Ana, CA 92707-0157Accredited Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab**Final Inspection & Test Report**
CherryMax® Rivet**An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	RevProc. Spec.	Rev	Lot I.D. No.: 86895587
CR3523-4-02	AB PS-CMR-3000	R	
			Lot Size: 24,000
			MFG. Date: September 25, 2007

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	86879838	A55879	QQ-N-281/MONEL	None	None
Stem	86867566	A55668	AMS5657 / 15-7PH	None	KG FA / MIL-L-46010, Type I
Collar	00000000	A54793	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5291258

Final Lube: None

MECHANICAL STRENGTH TESTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION		DISASSEMBLY
	651		400		150		10
	5	N/A	5	N/A	5	N/A	5
	C-N	B	C-N	B	C-N	B	C-N
RESULTS	991		691		289		83
	982		711		329		71
	993		728		265		97
	972		733		287		90
	957		710		282		41

C=CR N=NAS
M=MIL B=BAC
LOAD VALUES
IN POUND**METALLURGICAL AND OTHER RELATED TESTS/REQUIREMENT**

PCS	ITEM	STATUS	PCS	ITEM	STATUS
125	EXAMINATION	PASS	20	INSTALLATION (Min and Max Grips)	PASS
	Locking feature (missing collar/spindle)			Spindle Protrusion/Recession	
	Roundness/Concentricity			Collar Protrusion	
	Dimensional, ID Marks, Tool Marks/Nicks			Blind Head Dia./Formation	
	Visual (grip/material code, ID)			Tightness in plate	
	Laps, seams, folds				

Comments:Blind Fastener
Meets NAS1687 (Revision 2) sheet take-up test requirements.

Tr. Rev: -	Q Code
Rev. Date: 9/25/2007	V10
Inspector I Reyes	
Insp. Control #: 344750	

Cherry Aerospace certifies that the product tested above conforms to all referenced specifications listed and that the original data are available for review upon sufficient notice. Cherry Aerospace further certifies that the articles listed above have been manufactured and inspected in accordance with FAA TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Substitution of parts may only be done if acceptable to or approved by the FAA Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.



CHERRY AEROSPACE

195 Aerospace Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited Chemical Processing

Heat Treating

ISO/IEC 17025

Material Testing Lab

Final Inspection & Test Report CherryMax® Rivet

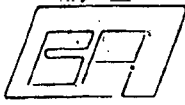
An ISO9001 and AS9100 registered company. OASIS #6111041606

Customer Parts List

Lot I.D. No.: 86895587

Rev: -

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
NAS9307M-4-02	3	NAS1687	2



BROWN-PACIFIC, INCORPORATED
P.O. BOX 3288 / SANTA FE SPRINGS / CALIFORNIA 90670
(562) 921-3471 • (562) 921-7012 FAX

MATERIAL TEST REPORT

FOB	SHIP VIA	JOB NO.	INVOICE NO.
SFS	BP TRUCK		170955
SHIP TO	CHERRY AEROSPACE LLC 1224 E. WARNER AVE SANTA ANA, CA 92707-0157	ORDER DATE	THIS MATERIAL WAS MANUFACTURED AND TESTED IN CONFORMANCE WITH THE NOTED SPECIFICATIONS. THE INFORMATION PRESENTED HEREIN IS CORRECT AS CONTAINED IN THE COMPANY RECORDS.
		CUST P.O. NO.	
		DUE DATE	
SOLD TO	HUNTINGTON ALLOYS/SPECIAL MTLs 3200 RIVERSIDE DR ATN: RACHEL T HUNTINGTON, WV 25705-1771	08/31/07	BY: <i>Alfred Lopez</i> A. LOPEZ, LAB SUP.
		4 COILS 697	9/12/2007 GM
PRODUCT ORDERED		QTY. ORDERED	KNOWINGLY OR WILLFULLY RECORDING FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW, TITLE 18 CHAPTER 47.
0.375 DIA TYPE M-400 CONVERTED TO 0.1225/0.1235 DIA SEAMSAFE MIRAFLEX COATED COIL		650	

SPECIFICATIONS:

M015.1230 REV T, QQ-N-281-D CLASS A CHEM ONLY, AMS 4730E CHEM ONLY

GRADE	MILL NO.	HEAT NO.
M-400	09	M85M7BR13

CHEMICAL ANALYSIS

C: 0.035 AL: 0.02
MN: 0.99 TI:
P: B:

S: 0.002 CB:
SI: 0.14 TA:
NI: 64.36 CB+TA:

CR: CU: 32.98
MO: SE:
CO: N:

V: FE: 1.47
CA: PB:
MG: BI:

ASTM GRAIN SIZE: 4/5
SPECIAL METALS, USA
MACRO:
MICRO:
OTHER:

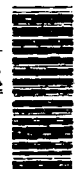
MECHANICAL PROPERTIES AND CAPABILITY

AS SHIPPED PROPERTIES	TENSILE, KSI	79.0	YIELD, KSI	58.5	% ELON.
	% RA		HARDNESS		SHEAR, KSI
ETI °F	TENSILE, KSI		YIELD, KSI	% ELON	% RA
STRESS RUPTURE	TEMP °F	STRESS, KSI	HOURS	% ELON	
	TEMP °F	STRESS, KSI	HOURS	% ELON	
H.T. PROCEDURE					
	TENSILE, KSI		YIELD, KSI	% ELON	
	% RA		HARDNESS		SHEAR, KSI
H.T. PROCEDURE					
	TENSILE, KSI		YIELD, KSI	% ELON	
	% RA		HARDNESS		SHEAR, KSI
H.T. PROCEDURE					
	TENSILE, KSI		YIELD, KSI	% ELON	
	% RA		HARDNESS		SHEAR, KSI



SEP 13 2007

08065M7BR13



A55879

THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT
ITEMS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE
A FELONY UNDER FEDERAL STATUTE.
STERN U.S.

FORM 8

HUNTINGTON ALLOYS
A Special Metals Company
HUNTINGTON, WEST VIRGINIA 25720



BROWN PACIFIC INC
3639 E BOWA DR
SANTA FE SPRING CA 90670

BROWN PACIFIC INC
PO BOX 3188
SANTA FE SPRING CA 90670

CERTIFIED MATERIAL TEST REPORT

No. 42042

HA ORDER NO./ITEM 400002678 1	DATE 05/09/07	PAGE OF 1 2
QUANTITY 10188 LBS	INSPECTED BY HA/SNC	
CHARGE ORDER NO. NOMEL 400LC .375	MARK ORDER NO. NOMEL 400LC .375	
DESCRIPTION OF MATERIAL SHIPPED NOMEL ALLOY 400 RE ROD - COIL HOT FIN HOT FIN .3750 IN COIL		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS
HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION
REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF
THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE.
THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH
ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE
BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIRE-
MENTS.

P. D. Custer
QUALITY CERTIFICATION REPRESENTATIVE

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****

SPECIFICATIONS: BROWN-PACIFIC S-3001 REV 2-10-98
US FED QQ-N-281D AM 2 CLASS A CHER ONLY/SAE AMS 4730E CHER ONLY/
GE S-400 (9-1-2006).
QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125);
EN 10 204/DIN 50049 (TYPE 3.1)

UNS: N04400

CHEMICAL ANALYSIS (WT %)								
REACT	C	MN	FE	S	SI	CU	NI	AL
N05N7BR	0.035	0.99	1.47	0.002	0.14	32.98	64.36	0.02

THE X OF NICKEL INCLUDES A SMALL AMOUNT OF COBALT
MELT METHOD: AIR

A55879



Inco Alloys
09M85M7BR13

MECHANICAL PROPERTIES								
CAT/LOT	QUANTITY	HARD	GRAIN	YIELD	TENSILE	YELG	R/A	DEG
		NESS	SIZE	.2XPSI	PSI	NONE	X	F
N05N7BR 13	12 PCS.							
ARDNESS - HRB	-AS SHIPPED	74.9						
RAIN SIZE-AS SHIPPED	AGS ASTM NO.	10.						
NORMAL - TRAN								

MELTING SOURCE: SNC-NA

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA



SEP 13 2007

MAY 14 2007

E: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT
STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE
A FELONY UNDER FEDERAL STATUTE.

STERN U.S.

FORM 5

HUNTINGTON ALLOYS
A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25720



BROWN PACIFIC INC
3639 E BORA DR
MANTA PE SPGS CA 90670

CERTIFIED MATERIAL TEST REPORT

No. 42042

HA ORDER NO./ITEM

400002678 1

DATE

05/09/07

PAGE OF

2 2

QUANTITY

10188 LBS

INSPECTED BY

KA/SKC

CHARGE ORDER NO.

NOMEL 400LC .375

MARK ORDER NO.

NOMEL 400LC .375

DESCRIPTION
OF MATERIAL
SHIPPED

NOMEL ALLOY 40G HR ROD - COIL HOT FIN HOT FIN
.3750 IN COIL

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS
HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION
REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF
THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE.
THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH
ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE
BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIRE-
MENTS.

P. D. Custer

QUALITY CERTIFICATION REPRESENTATIVE

CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES.
ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE),
ENX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 008 (EXPIRES AUGUST 2008) AND
IV CERTIFICATE 20674928 (EXPIRES MAY 2008)"

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:

E. BOLEN, P.D. CUSTER, R.A. MORRISON, P. WAUGH

A55879



Inco Alloys
09M85M7BR13



SEP 13 2007

CERTIFICATE OF TESTS ABNAHMEPRUEFZEUGNIS CERTIFICAT DE CONTROLE

CERT SERIAL# 000607714



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa 19601
Tel: (610) 200-2000 (800) 338-4592

08/07/07
CUSTOMER / BESTELLER / CLIENT

CHERRY AEROSPACE LLC
PO BOX 2157
1224 E WARNER
SANTA ANA CA 92787

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER / VERKAUFER / VENDEUR PAGE 1 OF 1

CARPENTER TECHNOLOGY CORP
RANCHO CUCAMONGA D.C.

8250 MILLIKEN AVE.
RANCHO CUCAMONGA CA 91730

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NOWERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
VP0083605	L28504	08/02/07	

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE 551538

PRODUCT DESCRIPTION: CARPENTER 15-7 PH ANNEALED CF WIRE FOR HEADING SC2
STRAND CU/SAOP J1T

SPECIFICATION: CHERRY AEROSPACE M-84 REV Y (06/14/07) EXCPT LTR (07/12/07)
AMS 5657 REV B (02/ /07) (CHEM ONLY)

SIZE 0.104000 IN. (2.64 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN(XRF)	SI(XRF)	P (XRF)	S (COM)	CR(XRF)
0.07	0.54	0.18	0.012	LT .001	15.52
NI(XRF)	MO(XRF)	AL(XRF)	N (FUS)		
7.28	2.22	1.20	0.042		

CAPABLE OF A SURFACE FINISH OF MAX N7 (63 RA MAX).

(T)RANSVERSE (L)ONGITUDINAL					
*YIELD STRENGTH (0.20 %)	KSI(MPA)	102.0 (703)	98.5 (679)	100.0 (745)	
TENSILE STRENGTH	KSI(MPA)	172.0 (1186)	170.0 (1172)	173.0 (1193)	
ELONGATION IN .50" %		50.0	56.0	61.0	

*YEILD STRENGTH APPROVED BY CUSTOMER

CAST ACCEPTABLE

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.
MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS OF DFARS 252.225.7014
(JUNE 2005) ALT.1 AND SUBSECTION 225.872.1

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 04-0540 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

VICKI L. CLAY
MET RELEASE/REQUIREMENTS ANALYST
CARPENTER TECHNOLOGY CORPORATION



SEP 06 2007

SV J...





SPECIALTY METAL PRODUCTS DIVISION

21 TOELLES ROAD, P.O. BOX 5807, WALLINGFORD, CT 06492-7607

CERTIFICATE OF TESTS

SOLD TO: CHERRY AEROSPACE LLC 1224 EAST WARNER AVE PO BOX 2157 SANTA ANA CA 92707-0157	SHIPPED TO: CHERRY AEROSPACE LLC 1224 EAST WARNER AVE SANTA ANA CA 92705	
MATERIAL DESCRIPTION: A286 .011 P/M .0005 X .066 P/M .001 P/N M-189-4 REV T QQ-P-35 AMS 5731	PURCHASE ORDER NO: VPO49817	MANUFACTURING NO: W110529
	AMETEK ORDER NO: 10034588	ITEM NO: TEXS66286-0110SS01
	SHIPPED: 5/21/07 12 Tecks	HEAT NO: 547979
	QTY CERTIFIED: 211 lbs	

CHEMICAL ANALYSIS (Wt %)

0.14	0.007	0.04	0.14	14.39
0.13	BALANCE	0.35	1.17	%Nb
24.44	0.017	0.001	0.21	
	2.30	0.27		

PHYSICAL PROPERTIES AS PROCESSED

Hardness 221.0 KNP
Tensile Strength
Yield Strength
(at .2% offset)
Elongation
Bend Test
Grain Size

MATERIAL IS DFARS COMPLIANT
COUNTRY OF ORIGIN -USA, CARPENTER TECH

R.M. Barra
Robert Barra

JUN 01 2007

02-20-07
Date



A54793

ALL INFORMATION GIVEN AND RECOMMENDATIONS MADE HEREIN ARE BASED UPON OUR RESEARCH AND ARE BELIEVED TO BE ACCURATE BUT NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, IS MADE WITH RESPECT THERETO OR WITH RESPECT TO THE INFRINGEMENT OF ANY PATENT. OUR PRODUCTS ARE SOLD ON THE UNDERSTANDING THAT THE USER IS SOLELY RESPONSIBLE FOR DETERMINING THEIR SUITABILITY FOR ANY PURPOSE. THIS INFORMATION IS NOT TO BE COPIED, USED IN EVIDENCE, RELEASED FOR PUBLICATION OR PUBLIC DISTRIBUTION WITHOUT WRITTEN PERMISSION FROM AMETEK, INC.

ISO 9001:2000
CERTIFIED

SPECIALTY METAL PRODUCTS

21 Toelles Road, P. O. Box 5807
Wallingford, CT 06492-7607 U. S. A.
Telephone: 203-265-6731 Fax: 203-294-0196

AMETEK

Certificate of Compliance

TO: **CHERRY AEROSPACE LLC** _____

Regarding:

Your P.O Number VP049817 _____

Our Order Number 10034588 _____

Mill Number(s) W110529 _____

Heat Number(s) 547979 _____

Customer Part No. M-189-4 REV T _____
(if applicable)

Quantity (wt./pcs.) 211^{lbs} / 12 rolls

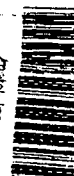
Shipping Date 5/2/07

Spec./Dwg. # M-189-4 REV T AMS 5731 QQ-P-35
(if applicable)

JUN 01 2007



Midek, Inc
547979



A54793

We hereby certify that all items in the above shipment have been produced, inspected, and found to be in compliance with applicable drawings, referenced specifications, standards, and purchase order requirements. All documents utilized were to the revised level specified by the customer.

By: *JP Chamberlain* Title: *QA Mgr.*

RA 10.3.06



10/02/00
CUSTOMER / BESTELLER / CLIENT

AMETEK
MIKE HOLM
21 TOELLES RD
WALLINGFORD CT 06492

SELLER / VERKAUFER / VENDOR

CARPENTER TECHNOLOGY CORP
ALLENTOWN DISTRIBUTION CENTE
9784 COMMERCE CIRCLE
KUTZTOWN PA 19530

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NUMBER/NUMERO DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
37312	PHL7192 L35635	09/28/06	1012
HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE 547979			
PRODUCT DESCRIPTION: CONSUMET A286 COLD FINISH ANNEALED TENSILE MIN 85.0 / MAX 105.0 KSI			
SPECIFICATION: AMETEK S66286-0380 S66286 REV 3 (11/22/99) EXCPT LTR (04/19/06) AMS 5731 REV K (10/01) CHEMISTRY ONLY (EXCEPT TI: 2.00-2.35) AMS 5737 REV N (10/01) CHEMISTRY ONLY (EXCEPT TI: 2.00-2.35)			
SIZE 0.038000 IN. (0.96 MM) RD WIRE			
PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)			
C (OES) 0.04	MN (XRF) 0.35	SI (XRF) 0.21	P (OES) 0.017
NI (XRF) 24.44	MO (XRF) 1.17	CU (XRF) 0.13	CO (XRF) 0.14
V (XRF) 0.27	B (OES) 0.007	AL (OES) 0.14	CR (XRF) 14.39
TENSILE AS SHIPPED. KSI(MPA) 90.0(621)			
MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS OF DFARS 252.225.7014 (JUNE 2005) ALT.1 AND SUBSECTION 225.872.1 CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 04-0540 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.			
KAY C. DANTZLER MET RELEASE/CERT PREPARER CARPENTER TECHNOLOGY CORPORATION			

10/2/06
MHT

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Kay C. Dantzler

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